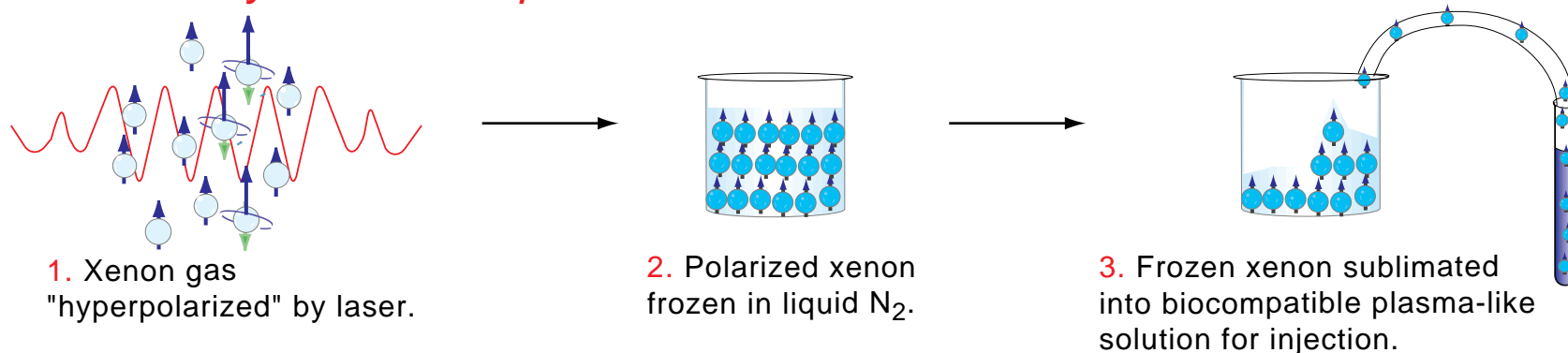


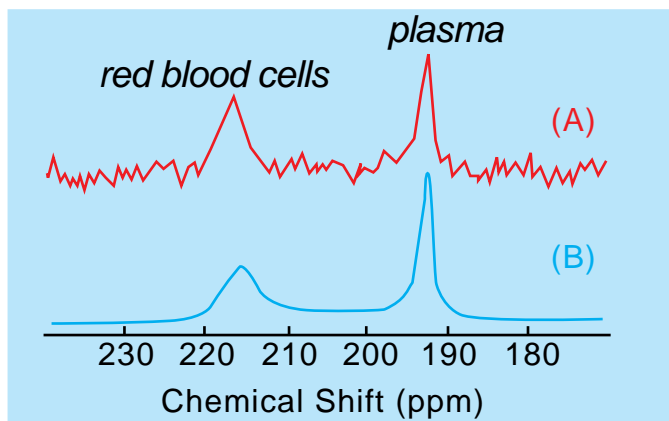
Enhanced NMR Technique Used to Study Biological Processes



Berkeley Lab Technique Shows Promise for In-vivo Medical Studies

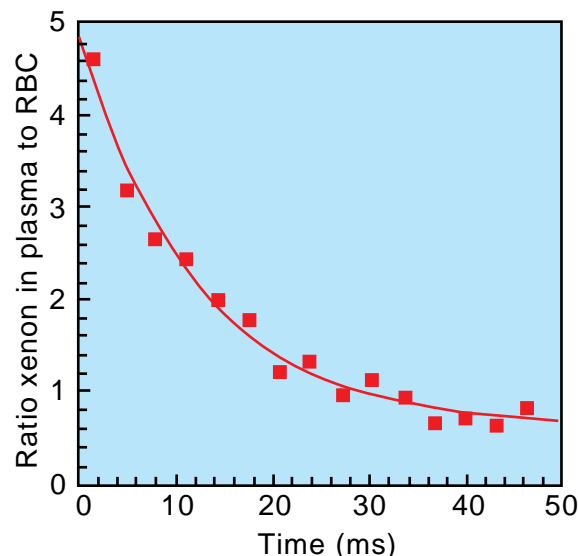


Xe NMR signals from red blood cells and blood plasma



(A) Unpolarized Xe; average of 520 scans .
(B) Hyperpolarized Xe; one scan only.

Diffusion of Xe atoms across red blood cell membrane



Plasma xenon "tagged" by NMR "inversion" after equilibration with xenon in blood cells. Plot shows change in ratio of inverted xenon in the plasma to inverted xenon in the red blood cells as it diffuses into the cells.